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**FFCA MONTHLY PROGRESS REPORT FOR
PERIOD ENDING MAY 31, 1988**

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ENCLOSURE**

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SUMMARY

Progressive actions associated with the Federal Facilities Compliance Agreement (FFCA) continued during the month of May, 1988. Highlights of work completed this month, and a separate listing of ongoing actions are shown below.

In April, FMPC completed installing the 76 on-site monitoring wells, and developed all of the 200 and 300 series wells during the month of May. Drilling began this month on the 16 off-site wells. Four of these wells have been completed to date, and two are under construction.

For FY 1988, five (5) stacks have been tested; three (3) in February and two (2) in April. During the month, four final stack test reports (the three February tests and one April test) were delivered to FMPC, and are currently under review.

The ninth monthly RI/FS technical progress report was transmitted to the USEPA on May 18, 1988.

INTRODUCTION

As an integral part of the agreement between the U. S. Department of Energy (US DOE) and the USEPA signed on July 18, 1986, monthly reports are provided by US DOE to USEPA regarding the progress made to meet the provisions of that agreement. This report fulfills that requirement by describing actions undertaken at the Feed Materials Production Center (FMPC) during the period May 1 through May 31, 1988.

WORK ASSIGNMENTS AND PROGRESS

The status of ongoing and completed work in support of the FFCA is summarized in Table 1. Additional descriptions of the work being performed and progress on these tasks are presented in the following sections. In both this portion of the monthly report, and in Table 1 (attached) descriptions of actions are presented in a format similar to that of the FFCA.

Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

1. Interim Remedial Measures

Sections I.A & I.B

FMPC Standard Operating Procedures are being revised sitewide to address EPA comments received on the CERCLA section of the FFCA.

Section I.C

The Interim Completion Report for Exterior Foam Application/Radon Treatment System was reviewed and forwarded to USEPA on May 23, 1988. The design for the internal foaming of the K-65 silos was sent out for industry review, and their comments have been received. Based on these responses, some modifications to the design have been identified as necessary, and a subtask is ongoing to modify the design. The sampling of the silos is scheduled for the first two weeks of September, and foaming planned for October.

The NEPA Checklist for overpacking the original 212 drums of thorium has been revised and forwarded to DOE for approval and signature. Purchase requisitions have been prepared for the overpacking equipment, and the contractor will begin work when the NEPA Checklist is approved. Project documentation, including the Design Review, Operational Readiness Review, and QA Plan is completed.

ASI/IT is currently performing a radiological analysis for the proposed thorium warehouse. The study is to determine if FMPC will exceed its Final Safety Analysis Report (FSAR) gamma level limit, established by USEPA, if all the drummed thorium were to be stored in one warehouse.

USEPA-Region 5 comments on the Plant 8 Thorium Technical Information Package (TIP) were discussed in a working session held with USEPA on March 28, 1988. On May 18, DOE received USEPA approval for finishing the system installation and completing the Plant 8 Silo and Bins Thorium Repackaging project as described in the Environmental Assessment. The contractor for this project is mobilized, and began a thorium silo sampling program on May 31 to determine design requirements for removal equipment and containment facilities.

2. Remedial Investigation/Feasibility Study (RI/FS) Section 2.A to 2.D

Work on these sections is complete.

Section 2.E

The Work Plan Revision 3 and supporting documents were transmitted to USEPA on March 31, 1988. The Work Plan Revision 3 incorporates necessary revisions resultant from EPA's comments received to date on the RI/FS Work Plan. On May 16, FMPC received USEPA approval on Revision 3 of the RI/FS Work Plan, with three comments.

Section 2.F

During the reporting period, ASI initiated the off-site drilling program with the completion of four monitoring wells of the 16 new wells to be constructed. During the month, 565.5 linear feet was drilled.

Monitoring well development was completed on all 200 and 300 series on-site wells. ASI will begin developing the off-site wells when all of the wells are installed.

FMPC has obtained agreements for the installation of 12 of the 16 off-site monitoring wells. An alternate location for two of the remaining wells has been identified and concurred with USEPA and OEPA. A license agreement has been prepared and submitted to the landowner at this location for approval. Communications with the landowner indicate that the agreement will be promptly signed.

Negotiations have failed with the property owner on whose land the remaining two wells were to be installed. Further, the landowner has requested that the existing 200 series well located on his property be closed. As a result, the FMPC is investigating placing a three well cluster (including a replacement 200 series well) on an adjacent property. USEPA and OEPA have agreed to assist the FMPC in acquiring landowner approval.

USEPA and OEPA have requested two additional off-site wells be installed to the northeast of the FMPC. The purpose of these wells is to evaluate the air deposition pathway to the groundwater for the prevailing wind direction from the FMPC. DOE has agreed to install these wells as part of the RI/FS Site Investigation. A licensing agreement is currently being prepared to gain access to this location.

Surface radiological surveys continued during the reporting period. To date, a total of 753 grids have been surveyed. For the surface soil sampling, 48 samples were collected during the month from 15 locations. FMPC has returned the Ultra Sonic Ranging and Data (USRAD) system to ORNL. The USRAD system was obtained to speed up radiological surveys over certain territories. ASI/IT found numerous problems trying to operate the system. FMPC is continuing sampling with the SPA-3 and FIDDLER systems, and arranging for a refund for the USRAD system.

The Facilities Testing Plan, required under the RI/FS, has been prepared by ASI. Following FMPC review, the Plan will be forwarded to USEPA-Region 5.

Section 2.G to 2.L

Work has not yet begun on these items.

3. Reports and Record Keeping

Section 3.B

The ninth RI/FS monthly technical progress report was transmitted to USEPA on May 18, 1988.

Clean Air Act (CAA)

Section B - Items 1 through 4

The FMPC deliverable addressing Section B - Items 1 through 4 of the Clean Air Act Section of the FFCA was transmitted to USEPA in August 1986.

A May 12, 1987 letter from William D. Franz to James A. Reafsnnyder stated that the FMPC air monitoring network should be reevaluated for its ability to measure representative concentrations of air pollutants. An evaluation of the FMPC air monitoring network was performed in December, 1986. Mr Franz's concerns on the location of air monitoring station No. 6 were addressed during the joint OEPA/USEPA inspection on July 14-17, 1987. Modifications to existing monitoring stations to meet EPA siting criteria were completed in April.

Section C

Under the FFCA, DOE will comply with the reporting provisions contained in 40 CFR 61.94 (c). Under these provisions, the DOE is required to, by June 1 annually, submit a report which includes the results of monitoring emissions from points subject to 40 CFR 61 Sub-part H and their associated dose calculations. The annual report for calendar year 1986 emissions was provided to EPA in 1987. The Annual Radionuclide Air Emission Report for calendar year 1987 was sent to DOE on April 19, 1988, forwarded to DOE Headquarters on May 23, 1988, and is being reviewed by DOE-HQ before forwarding to US EPA Headquarters.

Section D.I & D.2

The yearly particulate stack testing schedule for FY-88 was transmitted to EPA on December 31, 1987. The results of the FY-87 stack tests are complete. The ten (10) particulate stack test reports for 1987, including radiological results, were

transmitted to USEPA on March 18, 1988.

Stack tests have been completed on five FMPC emission points during FY 1988. Samples collected have been analyzed by Weston Analytics. The Final reports for four of these tests (the three February tests and one April test) were transmitted to DOE in late May, and will be forwarded to OEPA and USEPA in June.

Section E.2

The sixth Quarterly Particulate Emission Report covering the period from January 4, 1988, through April 11, 1988, is being reviewed by FMPC.

Sections F and G

Work on these sections is complete.

Resource Conservation and Recovery Act (RCRA)

Sections A and B - Items A.I through A.7 and Items B.I through B.5

USEPA-Region V provided comments on Sections A and B in December 1986. Both Sections were revised to reflect USEPA comments. The revised Section A was transmitted to the USEPA on January 23, 1987. The revised Section B was transmitted to the USEPA on January 28, 1987.

A May 12, 1987 letter from William D. Franz to James A. Reafsnnyder provided a second round of USEPA comments on these revised FFCA deliverables. WMCO submitted a Waste Characterization Report to DOE on March 29, 1988, which was subsequently forwarded to EPA on March 29, 1988, in response to RCRA Item A.I. The Waste Characterization Report answers the majority of EPA's RCRA concerns as spelled out in the Franz letter. FMPC's response to the remaining comments is anticipated by the end of June.

Section C.I

Work on this item is complete.

Radiation Discharge Information

Section A with Items A.1, A.2, and A.3

The FMPC off-site environmental monitoring program and the associated quality assurance plan were provided to USEPA in August 1986. A May 12, 1987 letter from William D. Franz to James A. Reafsnyder provided USEPA comments on these documents.

Six Quarterly Liquid Discharge Reports have been transmitted to the EPA thus far. The sixth quarterly report covering the period from January 4, 1988 through April 11, 1988, is being reviewed by FMPC. The April monthly report for radioactivity and uranium in the liquid effluent was sent to the Ohio Department of Health on May 23, 1988, and to USEPA on May 25, 1988.

TABLE 1.

STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON
FEDERAL FACILITIES COMPLIANCE AGREEMENT ACTIONS

STATUS OF ACTIONS AS OF
31-May-88

ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
CERCLA ACTIONS			
1	INTERIM REMEDIAL MEASURES		
1.A	Develop and implement O&M procedures and work practices to control radioactive emissions, including radon gas and decay products.	60 days	Completed. Comments were received from U.S. EPA on June 2, 1987. A comment response was transmitted to U.S. EPA on July 10, 1987. SOPs in process of being revised.
1.B.	Develop and provide to EPA a plan and implementation schedule for the control of radon at the K-65 silos.	30 days	Revised deliverable was transmitted to EPA on January 23, 1987. Second set of comments on original August 17, 1986 submittal received June 17, 1987. A comment response was transmitted to U.S. EPA on July 10, 1987.
	Develop & provide to EPA a plan & implementation schedule for control of thorium compounds.		This schedule was provided to US EPA in the revised deliverable transmitted on January 23, 1987. Updates of thorium repackaging activities will be presented to the US EPA during the June TIE meeting.
1.C.	Implement radon control plan approved by the EPA.	----	Phase VI (external foaming) of K-65 interim remedial action was completed Dec. 6, 1987. Phases I-IV (internal foaming) are being re-evaluated due to original design modifications. Sampling is scheduled for early September.
	Implement interim control plan for thorium compounds as approved by the US EPA.		The Technical Summary of Plant 8 (silos & bins) thorium repackaging was transmitted to USEPA on 17-Feb-88. USEPA comments on the summary were issued on 25-Mar-88. The Thorium Technical Information Package (TIP) has been reviewed by US EPA, and approval obtained for the subcontractor to begin construction of the removal equipment and containment facilities. A thorium silo sampling program began on May 31.
2	REMEDIAL INVESTIGATION/INVESTIGATION STUDY		
2.A.	RI/FS work to be conducted in accordance with EPA guidelines.	NA	No Action Required.
2.B.	-- No Action Required --	----	
2.C.	Provide to EPA analysis results for	45 days	Completed.

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		STATUS OF ACTIONS AS OF 31-May-88	
ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
	laboratory certification ---- SOW Task 7b.		
2.D.	Submit to EPA Work Plan for a complete sitewide RI/FS.	90 days	Work plan transmitted December 19, 1986. Supporting documents were transmitted on January 30, 1987.
2.E	Amend and submit revised RI/FS work plan to EPA if deficiencies are found.		Draft comments received from U.S. EPA on May 14, 1987. Final comments issued from U.S. EPA June 24, 1987. Comment responses and a revised Work Plan were transmitted to EPA on August 24, 1987. USEPA comments on the Work Plan Rev. 1 were received on December 28, 1987. The Work Plan Rev. 2 was transmitted to USEPA on February 11, 1988. Revision 3 of the Work Plan and supporting documentation was transmitted to USEPA on March 31, 1988. Revision 3 of the Work Plan was approved by US EPA during May.
2.F	Implement tasks detailed in the approved RI/FS Work Plan.		A conditional approval to initiate drilling 45 RI/FS monitoring wells was received from USEPA. Drilling of the wells was initiated on August 25, 1987. The FMPC received approval for installation of remainder of the monitoring wells on February 18, 1988. A total of 76 groundwater monitoring wells were completed by April 30, 1988, completing the drilling of all on-site wells. Installation of 16 off- site wells began in May.
3	REPORTS AND RECORD KEEPING		
3.B	RI/FS Progress Report		The ninth monthly RI/FS progress report was transmitted to US EPA on May 18, 1988.
CLEAN AIR ACT			
A.	-- No Action Required --	----	
B.1.	Install real-time alarm monitors on all MAJOR emission points. Also list non-alarmed emission points.	30 days	Completed.
B.2.	Establish and implement administra-	30 days	Completed.

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	tive controls for real-time monitors to ensure any unplanned releases will be detected and dealt with in 24 hours.		
B.3.	Establish and implement sample collection and analysis procedures and a QA plan to monitor ALL radionuclide emission points.	30 days	Completed.
B.4.	Establish schedule for the installation and replacement of emission control devices.	30 days	The schedule is included with the Annual Progress Report, sent to USEPA on April 4, 1988. A total of 57 dust collectors will be replaced.
	Prepare annual progress report on installation and replacement of emission control devices.	annually	The first Annual Progress Report on the Replacement of Air Pollution Control Devices-FFCA, Clean Air Act Section was submitted to USEPA on April 4, 1988.
	Respond to U.S. EPA comments on Air Monitoring Network WDF-JAR dated 12-May-87.		Completed. WDF concerns on monitoring station no. 6 addressed in July 14-17, 1987 meeting at the FMPC. Modifications to address WDF concerns on FMPC monitoring stations meeting EPA siting criteria were completed by April 30, 1988.
C.	Provide annual reports to EPA per 40 CFR 61.94(c)	yearly	The annual report for CY-1986 was transmitted to EPA in 1987. The Annual Radionuclide Air Emission Report for calendar year 1987 was sent to DOE on April 19, 1988, forwarded to DOE-HQ on May 23, 1988, and is being reviewed by DOE-HQ before forwarding to US EPA-HQ.
D.1	Provide EPA yearly stack-testing schedule.	yearly	Completed. The first annual stack testing schedule was transmitted to EPA in December, 1986. A revised schedule was transmitted July 24, 1987. The stack test schedule for 1988 was transmitted to EPA on December 31, 1987.
D.2	Provide EPA stack-test results for stacks tested that year.	45 days after test analyses completed	Final stack tests were completed in September, 1987. Stack test results for 10 stacks (including particulate radiological results) were submitted to EPA on March 18, 1988. Stack tests have been completed on five FMPC emission points during FY 1988. The final reports for four of these tests were sent to DOE in late May and will be forwarded to

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ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
			OEPA and US EPA in June.
E.1	Maintain records of monthly particulate matter emissions.	----	Continuing.
E.2	Provide quarterly reports to EPA on these emissions.	quarterly	The initial report was transmitted on December 12, 1986. The second report was issued April 20, 1987. The third report was issued July 29, 1987. The fourth report was issued October 19, 1987. The fifth quarterly report was transmitted to EPA during the month of March. The sixth Quarterly Particulate Emission Report covering the period of Jan. 4-Apr. 11, 1988 period was is being reviewed by FMPC.
F.	Provide EPA list of environmental air monitoring equipment, including location and the O&M program.	60 days	Completed.
G.	Develop and provide EPA an O&M program for air pollution control devices.	90 days	Completed.
RCRA			
A.	Achieve compliance with interim status regulations.	30 days	Revisions to the A1-A7 submittals transmitted on January 23, 1987. Additional comments received on May 12, 1987. FMPC's response to the remaining comments is anticipated by the end of June, 1988. A Hazardous Waste Analysis Plan was transmitted to USEPA on March 29, 1988.
A.1.	Conduct hazardous waste determination on all waste streams.	30 days	Completed.
A.2.	Commence a hazardous waste analysis program.	30 days	Completed.
A.3.	Update of operating records pursuant to 40 CFR 265.73 and 265.309.	30 days	Completed.
A.4.	Include full name and signature and date received on manifests pursuant	30 days	Completed.

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ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
	to 40 CFR 265.71.		
A.5.	Update the facility closure plan to reflect the year the facility expects to begin closure.	30 days	Completed.
A.6.	Begin collection of all run-off from the active portions of pit 4.	30 days	Completed.
A.7.	Prepare and maintain outline for a groundwater quality assessment program.	30 days	Completed.
B.	Submit to EPA for approval a detailed groundwater monitoring plan.	90 days	Complete. Additional comments received from US EPA on May 12, 1987.
B.1.	Determine groundwater flow at the RCRA regulated units.	90 days	Completed.
B.2.	Provide map showing location of all RCRA monitoring wells.	90 days	Completed.
B.3.	Include design and construction specs for all RCRA wells.	90 days	Completed.
B.4.	Monitor for all Appendix VIII constituents, including radionuclides.	90 days	Completed.
B.5.	Include a sampling and analysis plan to meet 40 CFR 265.92.	90 days	Completed.
C.1.	Develop a closure plan for the landfill pursuant to 40 CFR 265.112.	60 days	Completed. Final closure plan was transmitted to US EPA on July 29, 1987. OEPA granted approval of the closure plan on February 9, 1988. On May 3, 1988, FMPC provided OEPA construction specifications and drawings for capping over Pit 4.
C.2.	Develop a post-closure plan for the landfill pursuant to 40 CFR 265.118.	60 days	To be developed following RI/FS.
RADIATION DISCHARGE INFORMATION			
A.	Respond to USEPA comments on Items		Completed.

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ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS

A.1. - A.3. WDF-JAR dated 12-May-87.			
A.1	Provide EPA with existing offsite environmental monitoring program.	30 days	Completed.
A.2	Provide EPA the QA program associated with the environmental monitoring program.	30 days	Completed.
A.3	Report to U.S. EPA, OEPA and Ohio Department of Health the results of the continuous liquid discharge samples.	quarterly	Initial report transmitted on December 12, 1986. Second report transmitted April 20, 1987. Third report transmitted July 29, 1987. Fourth report was transmitted in November, 1987. The fifth quarterly report was transmitted to USEPA on March 18, 1988. The sixth quarterly report is being reviewed by FMPC.
REPORTING REQUIREMENTS			
B	Issue monthly progress report of actions taken to ensure compliance with FFCA requirements.	30 days	<p>Aug. 86 issued to US EPA Sep. 86. Sep. 86 issued to US EPA Oct. 86. Oct. 86 issued to US EPA Nov. 86. Nov. 86 issued to US EPA Dec. 86. Dec. 86 issued to US EPA Jan. 87. Jan. 87 issued to US EPA Feb. 87. Feb. 87 issued to US EPA Mar. 87. Mar. 87 issued to US EPA Apr. 87. Apr. 87 issued to US EPA May 87. May 87 issued to US EPA Jun. 87. Jun. 87 issued to US EPA Jul. 87. Jul. 87 issued to US EPA Aug. 87. Aug. 87 issued to US EPA Sep. 87. Sep. 87 issued to US EPA Oct. 87. Oct. 87 issued to US EPA Nov. 87. Nov. 87 issued to US EPA Dec. 87. Dec. 87 issued to US EPA Jan. 88. Jan. 88 issued to US EPA Feb. 88. Feb. 88 issued to US EPA Mar. 88. Mar. 88 issued to US EPA Apr. 88. Apr. 88 issued to US EPA May. 88.</p>